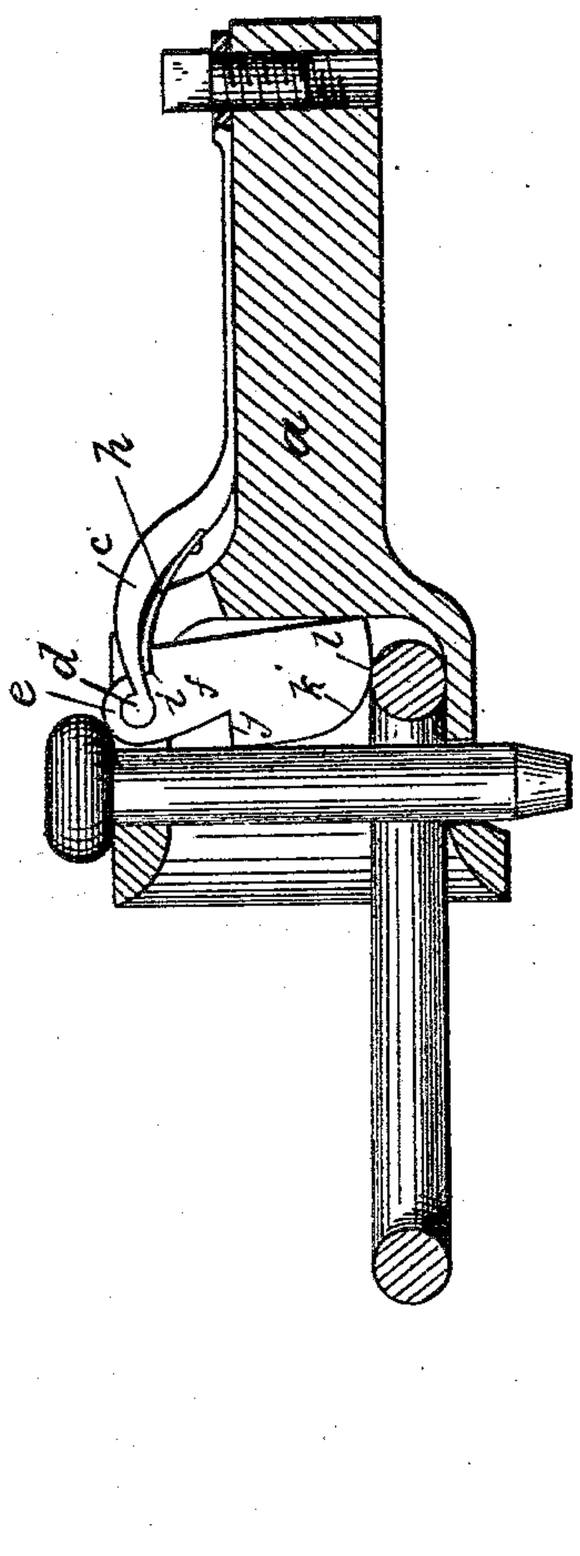
(No Model.)

F. STITZEL.

CAR COUPLING.

No. 283,681. Patented Aug. 21, 1883.



WITNESSES

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UNITED STATES PATENT OFFICE.

FREDERICK STITZEL, OF LOUISVILLE, KENTUCKY.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 283,681, dated August 21, 1883.

Application filed January 19, 1883. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK STITZEL, a citizen of the United States, residing at Louisville, in the county of Jefferson and State of Kentucky, have invented certain new and useful Improvements in Car-Couplings, of which the following is a full, clear, and exact description.

The object of this invention is to improve the construction of pin-and-link car-couplings; and the invention consists in a draw-head provided with a longitudinal vertical slot, in which plays a tongue peculiarly hinged to a supporting-spring and combined with a spring-check to retain the pin for engagement with the link, and to hold the link in a horizontal plane in the draw-head, all as hereinafter specified and claimed.

The drawing shows opposite draw-heads of my construction, in one of which the pin is held elevated ready to receive the link, and in the other the link is in position to enter the first.

The draw-heads may be of any approved pattern, and as all mine are substantially alike I will describe but one. This draw-head *a* has a longitudinal vertical slot, *b*, cut in the top wall of its link-cavity, and projecting into this slot is a stout spring, *c*, attached to the draw-head and lying flat upon the top of the draw-head. The fore end of this spring is upwardly curved and terminates in a circular knob, *d*, which knob forms a pivot upon which is socketed by the overlapping projection *e* a tongue, *f*, the upper end whereof extends up into the slot *b*, and the lower end projects into the opening or mouth of the draw-head vertically. This tongue *f*, so pivoted, has thus a free back-and-forth movement, and also a rising-and-falling capacity, the tendency of the spring being to depress and hold the tongue down. A spring, *h*, attached to the spring *c*, engages a notch, *i*, in the rear upper corner of the tongue, and tends to throw the lower end of the tongue outward toward the opening in the draw-head, as shown in the figure at the left-hand side of the sheet, and this normal position of the tongue, in connection with the shoulder *j*, serves to retain the pin in the elevated position to receive the incoming link, as shown in said figure, at the left-hand side or bottom of said sheet. As the link enters the draw-head it comes first in contact with the curved front edge, *k*, of the tongue, knocking said tongue back by overcoming the resilience of spring *h*, and raising said tongue against the force of spring *c*, passes under the squared bottom *l* of the said tongue, whereby it (the said link) is held in a horizontal position. So soon as the link strikes the tongue *f* and moves it toward the back of the draw-head cavity the pin falls through the link into position in the pin-holes in the draw-head to secure the link and couple the cars.

The figure at the right or upper side of the sheet of drawing shows the link held in position by the tongue and pin. The spring *c* rises to permit the tongue to work with links of different thickness.

The spring *h* may be dispensed with, and as the tongue *f* is hinged at its forward end gravity will be sufficient, with the weight of the tongue, to keep the tongue forward to hold up the pin.

A very slight reconstruction is all that is required to apply my invention to couplings already in use.

The link is held horizontal to facilitate coupling, and as held in the position indicated it is free to yield upwardly or downwardly to pressure, and hence is self-adapting to various heights of couplings.

What I claim is—

1. A draw-head provided with a longitudinal vertical slot in its top wall over its link-cavity, combined with a spring fastened by one end, and a tongue pivoted to the free end of said spring and playing in said slot, and adapted to swing forward toward the mouth of the draw-head to hold up the pin for coupling, and also to clamp the link beneath it to hold it in horizontality for convenience in coupling, substantially as described.

2. The draw-head provided with a longitudinal vertical slot in the top wall of its link-cavity, a spring attached to the draw-head and extended into the slot, the tongue *f*, pivoted to said spring, and provided with a notched rear upper corner, and a supplemental spring attached to the mainspring and en-

gaging the notched corner of the tongue to throw such tongue outward to hold the pin up for coupling, substantially as described.

3. In a car-coupling, the spring *c*, provided with the knob *d*, combined with the tongue *f*, having the overlapping projection or socket *e*, substantially as and for the purpose described.

In testimony whereof I have hereunto set my hand this 17th day of January, A. D. 1883.

FREDERICK STITZEL.

Witnesses:
S. MAAS,
ISAAC SMALL.